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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/986,105      | 11/07/2001  | James R. Mansfield   | 38079.0016          | 4906             |

25227 7590 11/21/2003

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EXAMINER

IMAM, ALI M

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3737

DATE MAILED: 11/21/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |    |
|------------------------------|------------------------|---------------------|----|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |    |
|                              | 09/986,105             | MANSFIELD ET AL.    |    |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |    |
|                              | Ali Imam               | 3737                | w. |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 39-59 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-34 is/are allowed.
- 6) ☒ Claim(s) 35-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5                      6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-38, drawn to a hyperspectral image calibration pad, classified in class 600, subclass 407.
  - II. Claims 39-54, drawn to a method of calibrating hyperspectral imaging of a sample, classified in class 382, subclass 103.
  - III. Claims 55-59, drawn to a system for obtaining spectral information, classified in class 356, subclass 300.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II, and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, such as invention I is directed to the composition of a calibration pad wherein inventions II and III are specifically directed to the method and system for calibrating a hyperspectral image.
3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II or III, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with James Remenick, Reg. No. 36,902 on 11/3/3 a provisional election was made with traverse to prosecute the invention of I, claims 1-38.

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Affirmation of this election must be made by applicant in replying to this Office action. Claims 39-59 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Hedman et al. (US 6,111,640) or Anderson et al. (US 5,879,294).

Hedman teaches in col. 3, line 30 - col. 4, line 67, a disposable hyperspectral imaging calibration device/panel (40) that can be selectively positionable for calibration of a spectrometer wherein the calibration device comprises a reflectance standard (col. 4, lines 8-10) having a predetermined reflectance or emission value at a plurality of known wavelengths over a known wavelength range (col. 4, lines 49-53). It is inherent that the known spectral reflection taught by Hedman (col. 4, line 9) would include at least 5% reflectance or emission since the panel (40) is mounted on the cover (36) which has substantially 100% reflectance. Hedman further teaches

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that known wavelength range is from 0.4-2.5 micron (400-2500 nanometers) (col. 1, lines 24) which inherently includes visible wavelengths through infrared wavelengths.

Alternatively, Anderson teaches a disposable hyperspectral imaging calibration device (1212) comprising a reflectance standard having a predetermined reflectance or emission value at a plurality of known wavelengths over a known wavelength range (col. 10, lines 30-36; col. 12, lines 15-35). Anderson further teaches that the wavelengths are selected from IR wavelength and that the reflectance is at least 5% (see Fig. 20).

***Allowable Subject Matter***

8. Claims 1-34 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art, alone or in combination teaches or suggests the specific combination and composition of the calibration pad recited in claim 1.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Imam whose telephone number is 703-305-0028. The examiner can normally be reached on Mon. - Th., 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on 703-308-2262. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



Ali Imam

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Primary Examiner  
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AMI  
11/14/3